

# The Citizen Forester

NOVEMBER 2015

NO. 184

## A Conversation with David Lefcourt Tree Warden in Cambridge

By Rick Harper As Extension Faculty in the Department of Environmental Conservation at the University of Massachusetts, I have the opportunity to meet and interact with like-minded individuals who are passionate about community trees and urban green spaces. I recently had the opportunity to meet with David Lefcourt, Cambridge City Forester. Dave graciously took the time to update me on the municipal forest practices in his community – especially as it relates to his ongoing planting efforts, as part of a continuing strategy to increase the forest canopy cover in Cambridge.

Rick Harper: Tell us a little about yourself and how you got into urban forestry?

David Lefcourt: I graduated with a B.S. in Environmental Horticulture from the University of New Hampshire. I stumbled into urban forestry while I was working for the Town of Wellesley, MA, when I was asked to help build the town's tree inventory using GIS/GPS. From there, I worked for DDOT -UFA in Washington, D.C., as an urban forester.



RH: Specifically, how do you see yourself as being part of advancing the practice of urban forestry itself? How can others help to further the discipline?

**DL: I'm a big proponent of both service to the profession AND learning through volunteerism.** As you know, I just wrapped up my two-year term as President of the MA **Tree Wardens' and Foresters' Association (MTWFA)**, and I have just commenced my term as President at the Society of Municipal Arborists (SMA). Volunteering has not only been a way for me to give back, but to learn from other

like-minded professionals who want to do their part to contribute to the profession. The 50th Annual SMA Conference recently took place in Charlotte, NC, as well as the 102nd MTWFA Conference in January 2015 here in Sturbridge, MA! There are always plenty of opportunities for new folks to get involved and, for those who may have been involved in the past, to reconnect in new ways.

RH: What are some of the biggest challenges you encounter as you "green" the City of Cambridge?

**DL: The urban environment is inherently complex and there's always plenty of opportunity to learn new strategies and gain new skills with each urban forestry-related project – be it a construction project, a tree removal, or a new planting effort. Frankly, though most of us know tree roots are typically pretty shallow and largely restricted to that upper 12-36" inches of the soil profile, I find that I need to be continually vigilant to make sure that the trees that we plant aren't installed with too much soil on their roots. I realize it doesn't sound complex, but this is a real problem that I see time and time again in the world of community forestry.**

RH: Absolutely, it is something I find myself constantly

### Up Ahead:

Interview	1-4	RH: How long have you been working with the City of Cambridge, MA?
Species		
Spotlight	5	DL: I have been the City Arborist/Tree Warden for the City of Cambridge for over eight years now. I'm responsible for the management of over 19,000 city trees and our urban forestry crew of eight. Since I started with the city in September 2007, we've planted over 2,500 trees – so there's never a dull moment!
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checking for when I am looking at trees – especially new installations.

DL: Yes, if we take a look at trees growing in wooded settings, for example, we almost always see a pretty pronounced root flare. In the Urban Forestry profession, **I've seen roots buried anywhere from 6 – 24 inches below grade!** Trees should not look like telephone poles in the ground! It is situations like this that, over the long-term, results in poor tree performance and ultimately in shortened lifespans, largely because the roots have suffered from a lack of water and oxygen.

RH: So how are you addressing this challenge in Cambridge?

DL: Well, to start, I think that we need to be more vigilant about selecting what comes from the field and inevitably goes into the parks, greenways, landscapes, and streets in our communities.

RH: So how are you selecting your trees?

DL: Generally speaking, when we select trees as Urban Foresters, we may be acquiring large numbers for, say, a community tree plant; this is not always the case, but comparatively speaking we plant a lot more trees than a private resident and even a lot of commercial contractors. Typically trees may already be dug and wrapped (B&B) or in a container (CG); however I prefer to select trees **that are still in the ground and haven't yet been**

dug. I look for the trees that are free of cankers or other defects that may include rubbing injury from the deer (in the nursery); any defects, after all, require the trees to reallocate resources toward closing the wound rather than regrowing the roots in the new planting environment.

**H: How “hands on” are you when you select your trees for planting in Cambridge?**

**DL: I've learned that selecting our own plant material** myself – to the degree possible – that we plan to plant in Cambridge is very important. I feel that other well-intentioned individuals – even professionals – may not have the standards or specifications in mind that I do. In essence, I know my community better than others, and what sort of stock fits our quality expectations.

RH: Are you typically planting B&B trees or have you tried trees that are produced using other methods?

DL: Yes, the vast majority of trees that we are planting

are B&B, but we have also planted CG, bare-root (BR), and this past year we installed six crab apples that were produced in grow-bags.

**I've found with each of these systems** that there are strengths and weaknesses. B&B usually offers more availability but the root capacity has been inherently limited as the digging process can remove 80-90% of the roots; in essence, you are working with a tree that has experienced a degree of stress right from the start, as result of being transplanted. On the other hand, CG trees have all of their roots, but circling roots can be a problem – especially over time. With the BR system you can have a **complete root system but there's** often limited availability. Handling with BR can be challenging as roots can dry out, so planting them as soon as possible is good practice, but might require a little more planning. Of course, I try to plant a few trees by myself every year, and I enjoy how light and maneuverable the BR trees are.

RH: So who is planting your trees?

DL: Generally speaking, Urban Foresters typically deal with three types of folks: sub-contractors, our in-house **crews, and volunteers; as I've** eluded to before, there are strengths and weaknesses with each of these approaches. Sub-contractors have the capacity to produce and consequently they can get a lot of trees planted in a relatively short period of time. With that comes an increased vigilance on my part as the Urban Forester in terms of quality control. In other words, I need to stay vigilant and make sure those trees are being installed in accordance with **our specs and that they are aren't planted too deeply or**



*Balled and burlapped (B&B) tree. Note the burlap, twine, and wire basket (Photo: D. Lefcourt)*



*Bare-root tree (BR). Note the fibrous root system. Be sure to keep the roots moist! (Photo: D. Lefcourt)*



*Container-grown (CG) trees. (Photo: M. Freilicher)*

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that other quality-related problems **haven't arisen. With** an in-house crew you inherently have more oversight and control, but the volume of trees planted may not be as numerous. Volunteers take ownership and even provide after-care, but their knowledge base

may not be equivalent to that of a professional, so following up to answer questions and to ensure quality is also important on this front as well.

RH: What do you use to guide the planting process in Cambridge?

DL: Any community should have good tree planting **specifications that are updated regularly. I'm always trying** to update my specs based on emerging information or on **something I've noted on a recent project, so we are already on our 3rd edition, and I'm happy to share what we have with other communities. I've realized that I do** work with a lot of crews that speak Spanish or Portuguese, so we are working to get a version in those languages to share with these contractors and their crews.

RH: **So given all that you've seen go right – and wrong –** do you have any tips on how to properly install a tree and avoid some of the common mistakes?

DL: Since the vast majority of what we plant are B&B, the first thing that I recommend is to make sure that the twine is removed from around the base of the tree and above the roots. I feel that this is important for a couple **reasons: synthetic materials don't break down over time** and can encourage problems with the roots, AND doing this allows us to find the root flare. There are a lot of tools to determine how much excess soil may be present and one is a chaining pin. By simply poking around the top of the ball at about 3-4 inches from the base of the tree we can determine how much soil is covering 2 or 3 of our larger, structural roots. Then I simply use a garden claw or small trowel/shovel to find and expose root flare. **As I mentioned, I've removed up to 24 inches of soil on top of roots, but it is more typically 4-10". Another** benefit to doing this is to simply reduce the size of the **root ball so that we don't need to dig as big of a hole –**



*Root ball size has been reduced by 1/4 to 1/3 by exposing the root flare. (Photo: D. Lefcourt)*

**I've reduced ball volume by 1/4 to 1/3 by going through** this process of exposing the root flare. This is also your opportunity to uncover and address problematic roots that may be girdling or growing irregularly. Dig your hole as wide as reasonably possible – at least at least twice as wide as the root ball. Then, simply place the root ball on undisturbed or compacted soil, setting the tree 1-2 inches above grade.

RH: **I'm regularly asked about removing the wire basket** – what is your feeling about this, as a practitioner?

DL: I do my best to remove the entire wire basket, but I fully realize that time and circumstance sometimes dictate that we do the best we can given the resources at hand. Removing no less than 1/2 to 2/3 of the burlap and wire basket is the minimal standard that I think we should follow. Following this, I simply fill the whole half-way up with soil, and stop to add water – what I call **"mudding in" the tree. This step will help remove air** pockets, and help secure the root ball in the ground. Then, fill the rest of the hole with soil and soak again with water. I finish with a nice layer of mulch, but **DO NOT** bury the root flare.

RH: What sort of precautions should folks take before they dig the planting hole?

DL: A safe project is a well-planned one and that starts at the onset of the planting. It is critically important to contact your local utility finder company to avoid any conflicts with underground utilities. Here in MA and the **Northeast we simply call "Digsafe" at 8-1-1.**

RH: How do you feel about staking trees?

DL: Staking a tree is not typically necessary, though, in the urban environment it usually serves as a reminder that this is a young tree and that people should exercise a little caution around an establishing plant. Of course we need to remember to remove stakes or tree grates/guards before they start to wound or girdle the tree. **We've all seen these instances** – especially when it is too late!

RH: We all know how important water is to an establishing tree - how do you water your trees?

DL: Water is indeed a necessity – especially during those early years or in an excessively dry season. Here in Cambridge, all new trees are installed with a gator bag. We also have our water-by-bike program where a summer

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intern (a “tree ambassador”) bikes around and waters trees by refilling gallon bags. The tree ambassador also helps weed the tree pits and takes care of litter around the tree, as well. We

started this campaign four years ago where we encourage residents and private business owners to feel empowered – and even responsible – to water and help care for the newly planted trees in the community.

*Cambridge Tree Ambassador with water-by-bike. (Photo: D. Lefcourt)*

RH: What other strategies and practices are you implementing in Cambridge that you feel other communities could benefit from knowing about?

DL: A concern that we feel is important to be aware of and proactive about is the issue of tree root-sidewalk conflict. We realize that heaving pavement can pose un-



*Cambridge Tree Ambassador with water-by-bike. (Photo: D. Lefcourt)*

safe conditions, and can be unsightly and not helpful to the trees, either. We routinely assess the condition of our trees and that includes identifying any side walk/curb conflicts. I then work with contractors on a continual basis, as we attempt to address the issue and protect the **tree at the same time. Roots greater than 2” in diameter** may be cut or shaved, but only with my approval, as the City Arborist. In an effort to address these conflicts in the long-term, we are experimenting with structural/engineered soils to provide more sub-sidewalk rooting space, and with flexi-pave.

RH: Any final thoughts – especially those who read this that are practicing Urban Foresters?

DL: Yes, remain vigilant. Whether it is a tree planting effort, or addressing a sidewalk conflict, or performing a tree removal. Take the steps to make sure that the job is done well, and learn from your mistakes along the way. Also, though we have punitive mechanisms in place here in Cambridge to fine contractors that blatantly disregard local ordinances/laws, I feel it is important to make a good faith effort to attempt to work cooperatively with all of the folks that are involved.

Keep an eye out for future tree planting trainings from the [MTWFA](#).

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## Tree City USA, Tree Line USA, Tree Campus USA

Applications are due December 31, 2015.

### Tree City USA

The Arbor Day Foundation's [online portal](#) for Tree City USA applications is now available for 2015 applications. We have posted detailed instructions on our website: [2015 Tree City USA Application Instructions and Worksheets](#)



Additional information: [What is Tree City USA?](#)

### Tree Line USA

Tree Line USA recognizes public and private utilities for practices that “**protect and enhance**” the urban forest. There are five core standards that companies meet. The goals of Tree Line USA are to promote a safe, reliable electric service and healthy trees in utility service areas. The annual deadline to apply is December 31. More information on the program can be found at: <http://www.arborday.org/programs/treelineusa/summary.cfm>

### Tree Campus USA

The Tree Campus USA program recognizes college campuses for management of trees and for student and community involvement. Tree Campus USA has five core standards that schools must meet to be eligible. The annual deadline to apply is December 31. More information on Tree Campus USA can be found at: <http://www.arborday.org/programs/treeCampusUSA/index.cfm>

For questions about the application process or to find out how your community, utility, college or university can participate, contact Mollie Freilicher, [mollie.freilicher@state.ma.us](mailto:mollie.freilicher@state.ma.us) 413-577-2966.



# Species Spotlight—Serbian spruce, *Picea omorika*

By Mollie Freilicher,  
DCR Community  
Action Forester

Though Serbian spruce has become popular in the landscape for its form and adaptability, in the wild, Serbian spruce has a limited distribution and is endangered. Serbian botanist **Josif Pančić** discovered Serbian spruce in 1875 on Mount Tara, in the Dinaric Alps in southwestern Serbia. It also is found in adjacent Bosnia and Herzegovina, along the limestone slopes of the upper Drina River in the areas of Srebrenica, **Rogatica, Foca, and Višegrad** (also the site of the famous book *Bridge on the Drina*.) But I digress.

the bark can become flaky. The flowers are monoecious and somewhat resemble strawberries. The fruit are cones 1.25 to 1.75-inches long and are purple-ish when young and turn brown as they mature.

Serbian spruce is adaptable to varying conditions, but does best in rich, moist, well-drained soil. It can grow in full sun or part shade and is tolerant of urban conditions.

While Serbian spruce does not have many significant pests or diseases, it is susceptible to white pine weevil (*Pissodes strobi*), which can kill the central leader as it does in white pine, disfiguring the tree. Serbian spruce is susceptible to general pests and diseases of spruce, such as mites and spruce budworm.

Serbian spruce grows best in rich, moist, well-drained soil, at sites where it is not exposed to strong winds. It is adaptable to urban conditions. Michael Dirr notes that Serbian spruce would be suitable as a specimen tree or as part of a grouping of trees and is one of his favorite spruces.

Photos: Form: [UConn Plant Database](#); Fruit, leaves, twig, and bark: [Virginia Tech](#).

## Resources

Dirr, Michael A. 1998. *Manual of Woody Landscape Plants*. 5<sup>th</sup> Ed. Champaign, IL: Stipes.

Serbian spruce. UConn Plant Database: <http://hort.uconn.edu/detail.php?pid=312>.



it a graceful habit. It can reach heights of 50 to 60 feet, with a 25-foot spread. It has a medium growth rate.

The leaves are evergreen, and unlike the four-angled needles of other spruces, leaves of Serbian spruce are flattened. They are 0.5 to 1.0-inch-long and dark green, with two stomatal bands that

can give the underside a whitish appearance.

The bark is thin and dark gray-brown. As the tree ages,



# Growing on Trees—2015 Tree Steward Training

By Mollie Freilicher, DCR Community Action Forester and Julie Coop, DCR Urban and Community Forester



The Department of Conservation and Recreation Urban and Community Forestry Program held its annual Tree Steward Training at Harvard Forest last month. This year, about twenty individuals from communities across Massachusetts gathered to learn about trees and

advocating for trees in their communities. Attendees this year came from a variety of backgrounds: tree board and community group members, community members, landscape designers, tree wardens, arborists, graduate students, and others. Clark University graduate student Flor Monroe reached out for sponsorship, and her local bank, **St. Mary's Credit Union, in Marlborough, MA**, sponsored her attendance this year. Thank you **St. Mary's Credit Union** for your support!



This year, Jen Kettell, of Jen Kettell Horticulture and Consulting, presented on pruning young trees, and attendees got to head outside and hone their skills pruning some of

the young sugar maples that DCR has planted over the years as part of the Tree Steward Training program. DCR Service Forester Joe Perry followed, with an outdoor/indoor session on tree measurement and tree ID. Anne-Marie Moran, Manager, T&D Forestry, New England, with National Grid, shared National Grid's vegetation management program with the group. The program broke for lunch and reconvened in the afternoon. We



ended the day with a presentation from Rick Harper, Extension Assistant Professor at UMass Amherst and a presentation on site selection. After a brief inside portion, everyone headed outside to plant a tree just down



the road from the Fisher Museum. For the most part, we dodged the rain, and everyone got a chance to dig and see a tree that had been field-grown in a "grow bag," a fabric bag that contains the roots and growing medium. Attendees reconvened at Harvard Forest, found their overnight accommodations, and met up again for the catered dinner.



Saturday morning dawned cool, foggy, and a bit rainy, which was okay since we were spending most of the day inside. As usual, we started the day with a ses-

sion on DCR resources and grants, and then had a great session with Sean Mahoney who spoke about using local wood to engage communities. (Peterhsam is home to the first community wood bank in the state!) Dr. David Bloniarz followed with a presentation on i-Tree. Attendees learned about the software suite and got to see i-Tree Design in action. Ken Gooch, DCR Director of Forest Health, provided an update on forest pests in Massachusetts. In the afternoon, we tried a new activity centered on urban forest benefits that got everybody moving. The session ended with a group discussion, where we tackled issues such as how to motivate decision-makers to support and fund urban forestry activities in the community, challenges and successes in communities, invasives, and other issues. Thanks to everyone who attended this year! Thanks to Harvard Forest for hosting us and the Millers River Café for catering the training. And special thanks to our presenters: Dr. David Bloniarz, Ken Gooch, Rick Harper, Jen Kettell, Sean Mahoney, Anne-Marie Moran, and Joe Perry.

See everyone in 2016!

# Growing on Trees—Grants

## DCR Urban and Community Forestry Challenge Grants

Next deadline: November 1 (Full Application)

Challenge grants are 50-50 matching grants (75-25 for environmental justice projects) to municipalities and nonprofit groups in Massachusetts communities of all sizes for the purpose of building local capacity for excellent urban and community forestry at the local and regional level.

The USDA Forest Service provides funding for the grant program, and DCR administers the grants with guidance **from the Massachusetts Tree Wardens' and Foresters' Association**. The DCR Urban and Community Forestry Program assists communities and nonprofit groups in their efforts to protect and manage community trees and forest ecosystems, with the ultimate aim of improving the environment and enhancing the livability of all of **Massachusetts's communities**.

For more information on the Challenge Grants, including our Eversource Go Green grants and National Grid Partnership Grants, contact Julie Coop at 617-626-1468 or [julie.coop@state.ma.us](mailto:julie.coop@state.ma.us) or Mollie Freilicher at 413-577-2966 or [mollie.freilicher@state.ma.us](mailto:mollie.freilicher@state.ma.us).

### Changes to the DCR Urban and Community Forestry Challenge Grant

In 2016, our Urban and Community Forestry Challenge Grant will move to one grant round per year. The annual deadline will be November 1. This move will enable the program to better review and compare grant proposals. Look for some additional changes to the 2016 program in upcoming issues.

## TD Green Streets Grant

TD Green Streets supports innovative practices in community forestry. Through this grant program, municipalities are eligible to receive one of ten \$20,000 grants in support of local forestry projects in low- to moderate-income (LMI) neighborhoods.

To be eligible for a TD Green Streets grant, your municipality must be a current Arbor Day Foundation Tree City USA® community **within TD Bank's footprint**.

This is a reimbursement grant—funds will be provided upon completion of your project and a final report. No more than 50% of the proposed funding can be used to purchase new trees.

Eligible communities include:

Amherst	Lawrence	Quincy
Beverly	Leominster	Salem
Boston	Lowell	Saugus
Brockton	Lynn	Somerville
Cambridge	Marlborough	Springfield
Chelsea	Medford	Watertown
Chicopee	Newton	West Springfield
Framingham	Northampton	Weymouth
Greenfield	Orleans	Worcester
Haverhill	Peabody	
Holyoke	Pittsfield	

For more information, go to: <https://www.arborday.org/programs/tdgreenstreets/index.cfm>

## Environmental Protection Agency Urban Waters Small Grants

**The mission of EPA's Urban Waters Program is to help local residents and their organizations, particularly those in underserved communities, restore their urban waters in ways that also benefit community and economic revitalization.**

For the 2015/2016 grant cycle, EPA seeks to fund projects that address urban runoff pollution through diverse partnerships that produce multiple community benefits, with emphasis on underserved communities.

Under this announcement, the EPA is soliciting proposals from eligible applicants for projects that will advance

**EPA's water quality and environmental justice goals.**

Note that, proposed project activities must take place entirely within one of the Eligible Geographic Areas, as illustrated on the interactive map provided on the Urban Waters Small Grants mapping website.

EPA will host one national Information Session regarding this announcement via webinar on Oct 22, 2015 at 2pm EST. EPA will attempt to answer any appropriate questions in this public forum. Registration information for the Information Session can be found here. Grants are due November 20, 2015.

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# Growing on Trees—Webcasts

## Urban Forestry Today Fall Noonhour Webcast Series

Tree Protection during Construction:

### **What You Don't Know** Can Hurt You

Thursday, November 5, 2015 12:00 – 1:00 p.m. (Eastern)  
Urban tree injury related to construction can degrade the performance of our urban trees, limiting their life-span and even causing tree failure! Arborists, urban foresters, and tree enthusiasts will learn about the latest research and review proper practices related to protecting trees during construction, as they join guest speaker, Dr. Gary Johnson, University of Minnesota. Go to: [www.joinwebinar.com](http://www.joinwebinar.com) Code: 138-507-475

These broadcasts are free and each one will offer the opportunity for arborists to earn 1.0 ISA CEU and 0.5 MCA credit.

For more information, contact:

Rick Harper, Department of Environmental Conservation  
University of Massachusetts, Amherst  
[rharp@eco.umass.edu](mailto:rharp@eco.umass.edu)

*The Urban Forestry Today 2015 Webcast Series is sponsored by the University of Massachusetts Department of Environmental Conservation, in cooperation with the USDA Forest Service, Massachusetts Department of Conservation and Recreation, University of Massachusetts Extension, and Massachusetts Tree Wardens' & Foresters' Association.*

## Urban Forest Connections

No November webinar

**The Forest Service's Urban Forest Connections** webinar series brings experts together to discuss the latest science, practice, and policy on urban forestry and the environment. These webinars are open to all. Past webinar presentations and recordings are available online: <http://www.fs.fed.us/research/urban-webinars/>.

Future Webinars

December 9, 2015 | 1:00pm-2:15pm ET

January 13, 2016 | 1:00pm-2:15pm ET

February 10, 2016 | 1:00pm-2:15pm ET

We do our best to ensure that listings are accurate, but please check with program organizers for the most up-to-date information.

## EPA Webinar: Winter O&M for Green Infrastructure

November 3, 2015, 1:00 - 2:30 PM EST

[Register!](#)

Operations and maintenance (O&M) is critical to the long-term effectiveness and success of green infrastructure practices in any community. However, wet weather in colder climate communities often presents unique challenges to green infrastructure maintenance - from snow, sediment, and salt to storage and drainage. This webcast will feature two presentations that illustrate some of the realities and best practices of winter O&M and will build off of the information shared in EPA's [2014 O&M webinar](#). Featured speakers are Tom Ballesterio from the University of New Hampshire Stormwater Center, and Brooke Asleson from the Minnesota Pollution Control Agency.

For more information and to register:

<https://attendee.gotowebinar.com/register/257480704225545730>

## From UMass Extension

End of Season Wrap-up for Landscapers:

Updates from UMass Extension

Thursday, November 12, 2015 - 9:00 a.m. to 3:30 p.m.

Campus Center Auditorium, UMass Amherst  
[ag.umass.edu/events/end-of-season-wrap-up-for-landscapers-updates-from-umass-extension](http://ag.umass.edu/events/end-of-season-wrap-up-for-landscapers-updates-from-umass-extension)

Rust Never Sleeps: Diseases of Herbaceous Landscape Perennials—Dr. Angela Madeiras, UMass Extension Plant Pathologist

Important Pests and Pathogens of Landscape Trees and Shrubs in 2015—Dr. Nick Brazee, UMass Extension Plant Pathologist

Caterpillars and More: Update on the Health of Massachusetts' Trees and Predictions for 2016—Ken Gooch, Massachusetts Dept. of Conservation and Recreation Forest Health Program and more!

Pesticide contact hours: 3 for categories 29, 36, or 37 OR 5 for Applicators License; ISA, MCA, MCH, MCLP, and AOLCP credits requested.

Cost: \$75; \$64/person for a group of two or more registrations from the same company (lunch is on your own). Registration options at [ag.umass.edu/events/end-of-season-wrap-up-for-landscapers-updates-from-umass-extension](http://ag.umass.edu/events/end-of-season-wrap-up-for-landscapers-updates-from-umass-extension)



# Growing on Trees

## Mass Tree Wardens' and Foresters' Association

The Massachusetts Tree Wardens' and Foresters' Association is seeking nominations for the Seth H. Swift Tree Warden of the Year Award. The Association's criteria for the award winner include the following:

- ◆ Holds the position of Tree Warden or Deputy Tree Warden in a municipality
- ◆ **Actively participates in Tree City USA, the National Arbor Day Foundation's program**
- ◆ Demonstrates active leadership and dedication to the protection of urban trees
- ◆ Educates the community about the importance of healthy urban trees
- ◆ Holds an annual Arbor Day celebration
- ◆ Shows commitment to the profession by volunteering with a tree-related organization.

If your tree warden meets these criteria, we encourage you to fill out the nomination form to reward your community and this employee with well-deserved recognition. Nomination forms **are available on the Mass Tree Wardens' website:** <http://masstreewardens.org/tree-warden-of-the-year/>. Send in your nominations by December 1.

*Please note: Each year the Mass. Tree Wardens receive a number of nominations, and it is always a very difficult choice! If you've nominated your Tree Warden in the past and been disappointed, we encourage you to resubmit your nomination again this year.*



## Save the date! —103<sup>rd</sup> Annual Conference

January 12-13, 2016, Sturbridge, MA

More information at [www.masstreewardens.org](http://www.masstreewardens.org)



## Every Kid in a Park: Fourth Graders Visit for Free

Washington--As part of President Obama's commitment to give every American the opportunity to visit our national treasures, the "Every Kid in a Park" initiative gives fourth graders and their guests free admission to public lands. Homeschoolers or others not in a "grade" are eligible, if they turn 10 years old between 9/1/15 and 8/31/16. This also includes programs such as Scouts, 4-H, and Boys and Girls Clubs. Fourth graders can get a voucher for unlimited visits to federal lands and waters at the "Get Your Pass" section of <http://www.everykidinapark.gov>. Educators can download and print lessons and activities and bulk vouchers for students.

This effort includes the National Park Service, Forest Service, Department of Education, Army Corps of Engineers, Bureau of Land Management, Fish and Wildlife Service, Bureau of Reclamation, and National Oceanic and Atmospheric Administration. Non-federal sites may also honor passes, so check with them.

## 51<sup>st</sup> Annual Society of Municipal Arborists Conference

November 16–17 | Sheraton Denver Downtown Hotel | Register Now

The Society of Municipal Arborists (SMA) is leading the world in building the confidence, competence, and camaraderie of the family of professionals who create and sustain community forests. The SMA is an organization of municipal arborists and urban foresters, and their membership also includes consultants, commercial firms, and citizens who actively practice or support some facet of municipal forestry.

## Partners in Community Forestry Conference

November 18-19, 2015, Denver, CO

Two days of collaboration and idea-sharing geared toward helping you find new ways to strengthen your own community forest. **Whether you're an urban forestry professional, an environmental nonprofit, or an educator interested in the role of trees in our cities, there is something at the Partners conference for you.** For more information, go to:

<https://www.arborday.org/programs/pcf/index.cfm>

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# Growing on Trees

## Harvard Forest Seminars

Attend in person or join online  
<http://harvardforest.fas.harvard.edu/seminars>

Seminars are Fridays at 11:00 a.m. Eastern Time, unless otherwise noted. They are held in the Harvard Forest Seminar Room and also can be joined online via web-streaming. Seminars are free and open to the public; no pre-registration is required.

Friday, November 6 -[Join seminar online](#)  
 Peter Thomas, Keene University (U.K.) &  
 Harvard Bullard Fellow  
*What have trees ever done for us:  
 a talk for the public*

Friday, November 13 -[Join seminar online](#)  
 Yude Pan – USFS Northern Research Station & Harvard  
 Bullard Fellow  
*The dependence of the CO2 fertilization effect on  
 annual rainfall differs for woody and grassland eco-  
 systems*

Friday, November 20 - [Join seminar online](#)  
 Kata Náfrádi, University of Szeged, Hungary  
*Charcoal analysis and vegetation reconstruction in  
 Hungary during Neolithic times (6000-4500 BC)*

Friday, December 11 -[Join seminar online](#)  
 Richard T. T. Forman, Harvard University Graduate  
 School of Design  
*Where Are the Best Places for the Next Billion Peo-  
 ple? II. Imagine the Science of Ecology If It Had  
 Started in Cities...*

## Scientists Create Tiny Zones of Climate Change

July 27, 2015 - To study warming temperatures, the Rob Dunn Lab at North Carolina State University has set up small chambers to simulate climate change in the woods of North Carolina and Massachusetts. Heated air is pumped into the open-top chambers to see how predicted warming levels could affect plant and insect life. The experiment is one of the most robust of its kind, with six years of data and 12 chambers in two locations. Using insects as a starting point, the researchers hope to understand the wider changes even a few degrees could make. Watch the video at [National Geographic](#).

## Forest Workshops

**Climate Change and New England Forests**  
 November 18-19, North Woodstock, NH  
 Presentations and activities will help foresters and natural resource professionals integrate climate change considerations into management and conservation. Find out more at [Forestadaptation.org](http://Forestadaptation.org) (Seen in the NECSC newsletter)

**Climate Change and Rhode Island Forests**  
 November 20-21, Smithfield, RI  
 This Rhode Island Woodland Partnership is hosting two workshops to help foresters, natural resource managers, land trusts, and other members of the conservation community integrate information related to climate-change and forests into their management and conservation activities. Find out more at [forestadaptation.org](http://forestadaptation.org).

**Northern Forests USDA Climate Sub Hub**  
 The USDA Northern Forests Climate Sub Hub provides a sector-specific focus on forest lands to support the work of the Midwest and Northeast Regional Climate Hubs. The Sub Hub helps natural resource managers and woodland owners integrate climate change information into planning, decision-making, and management activities in order to sustain the diverse benefits from forests in a changing climate. Find out more at the [Northeast Climate Hub](#).

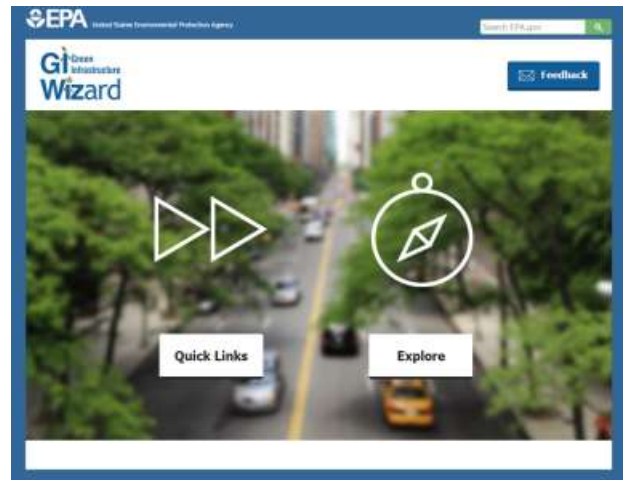
You can also check out the [USDA Climate Change Resource Center](#): The Climate Change Resource Center (CCRC) is a web-based, national resource that connects land managers and decision-makers with useable science to address climate change in planning and application. Current and expected climate changes have serious implications for ecosystems and the benefits they provide.

The CCRC addresses the land manager's question: "What can I do about climate change?" The CCRC provides information about climate change impacts on forests and other ecosystems and on approaches to adaptation and mitigation in forests and grasslands. The website compiles and creates educational resources, climate change and carbon tools, video presentations, literature, and briefings on management-relevant topics, ranging from basic climate change information to details on specific management responses. The CCRC is a joint effort of the Forest Service Office of the Climate Change Advisor and Forest Service Research and Development.

# Gleanings

## EPA Launches New Tool to Aid Community Interest in Green Infrastructure

EPA has released a new web-based tool that helps local officials and other community members consider the benefits and uses of green infrastructure. Green infrastructure relies on vegetation, soils, and natural processes to manage stormwater and create healthier urban environments. The Green Infrastructure Wizard, or GIWiz, responds to growing community interest in using green infrastructure as a means of addressing water quality and a range of other local goals. Using a self-guided format, users can find EPA tools and resources to learn the basics of green infrastructure and explore options for financing it; visualize and design rain gardens and permeable pavements; understand how other communities are using green infrastructure to revitalize neighborhoods; and, develop public education and outreach campaigns. EPA invites additional input on this version of the product. [Click here to access GIWiz.](#)



The Forest Health Advisory System provides a snapshot of U.S. forests and the susceptibility of their trees to major forest insects and diseases through the year 2027. Users select their area of interest (States, National Forests, National Parks, Tribal Lands, etc.) and receive information about pests and potential tree mortality for that area. The online tool is based on the National Insect and Disease Risk Forest Health Advisory System Maps, which integrates 186 individual insect and disease hazard models. [Read More >>](#) (Seen in the NECSC newsletter)

## Watershed Scientists Offer National Flood and Runoff Assessment

Amherst, MA—September 18, 2015—The first continent-wide, multi-factor analysis of climate and land cover effects on watersheds in the U.S. has been released and provides a broad new assessment of runoff, flooding, and storm water management options for land use and town planners and water quality managers. Recommendations include the increased use of green infrastructure and best management practices to enhance watershed system resilience.

Watershed scientist Timothy Randhir and his doctoral student Paul Ekness in the Department of Environmental Conservation at the University of Massachusetts Amherst hope their new multivariate simulation and statistical models at the watershed system level will give managers some practical ideas on new incentives to get developers to include water quality, green infrastructure, and conservation plans in their projects. They also want to encourage a new awareness of the need for cities and towns to cooperate when considering new development. The study quantifies the connections between land use and climate—that is temperature and precipitation—to the runoff process and flooding in a watershed system at a larger scale than was available before. Details appear in the *Journal of Geophysical Research: Biogeosciences*. Seen in the [ACTrees newsletter](#).

## Trees Help Disperse Pollution in Urban Centers

Leicester, UK—September 3, 2015—A new study conducted at the University of Leicester has concluded that trees could help to disperse pollution in cities across the country, purifying the air we breathe and reducing pedestrian pollution by up to 7%.

### Using the High Performance Computing services' ALICE supercomputer to create a model

of buildings and trees (collated from data provided by Leicester City Council and Bluesky National Tree Map (NTM)), the researchers were able to determine that trees reduced pedestrian-height pollution by up to 7%.

The paper, "[Pollution dispersion in cities improved by trees](#)," published in the science journal *Atmospheric Environment*, was a collaboration between the university, Bluesky International Ltd. and the Natural Environment Research Council. Seen in the [ACTrees newsletter](#)





# Gleanings

## Why Urban Trees Solve So Many of Our Problems

By Catherine Schuknecht

Trees cover an estimated 20.9 million acres of urban land in the continental United States. That's 3,659 square feet of urban forest per city dweller—about the size of a not-so-modest four-bedroom house. But like housing, trees are not equally distributed across American cities. Studies have shown that there is a higher demand for trees in wealthy neighborhoods. Conversely, areas with a higher proportion of African Americans, low-income residents, and renters enjoy less tree cover.

The unequal allocation of city greenery means that many low-income and non-white urbanites are missing out on the benefits of having trees on their city blocks, which, it turns out, are significant. If your street is peppered with Magnolias and American Sweet Gums, your neighborhood will look better, sound better, and be less windy. Trees in urban spaces suppress noise, beautify monochromatic pavement, and reduce wind speeds.

**If offensive city noises do traverse the leafy canopy outside your window, you'll be less stressed about it.**

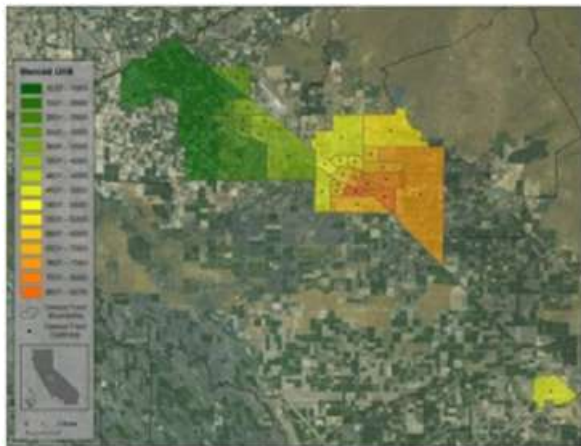
In 1984, healthcare design researcher Roger Ulrich conducted a study that revealed post-operative patients with tree views have shorter hospital stays than their counterparts with brick wall views, which Ulrich believed was due in part to reduced stress. Since then, numerous studies have linked verdant surroundings to lower stress levels.

Green spaces will also help bring your community together; they provide opportunities for hands-on environmental education and foster outdoor recreation. Even your grumpy next-door neighbor loves them.

According to a 2010 study by the USDA Forest Service, more foliage also means fewer felonies. Because urban greenery indicates that a neighborhood is well maintained, potential criminals believe they are more likely to be caught and are therefore less likely to risk committing a crime, suggested researchers. Read the full article in Sierra magazine.

## First-of-Its-Kind Index Quantifies Urban Heat Islands

Sacramento, CA (September 16, 2015) — The California Environmental Protection Agency released a study last week that identifies areas across California experiencing hotter summer temperatures as a byproduct of urban development. It also provides a new Urban Heat Island Index that will give state and local governments a tool to help prioritize areas for trees and urban greening.



Urban areas have higher temperatures during summer compared with adjacent rural communities, a phenomenon known as the urban heat island. Heat islands are created by a combination of dark pavement and roofs that absorb heat, heat-generating activities such as engines and generators, and the absence of vegetation that provides evaporative cooling.

While the phenomenon is well-known, the study for the first time creates an Urban Heat Island Index to quantify the extent and severity of the heat island effect for individual cities throughout the state.

The study found temperature increases ranging from a few degrees in small cities and coastal areas to as much as 19 degrees on average over a day in large, inland urban areas. Read the full story on the ACTrees website.

## News

### Arborists Rush to Take Down Tree Threatening Mill Valley, CA Homes

By Katie Utehs

October 6, 2015— Mill Valley, CA. —There were some tense moments in the North Bay Tuesday night after a large 130-foot tree almost came crashing down on several homes. Fortunately, everyone was allowed back in their homes and the power was restored by 11 p.m. Firefighters and professional arborists with Treemasters spent more than five hours properly securing the 130-foot pine tree. With the help of a large tow truck they pulled it over safely, away from three homes and the power lines that it threatened. Crews tied the tree earlier after the homeowner attempted to cut it down himself. As it shifted dangerously close to the power lines and three nearby homes, the man called for help. Neighbors say the young family who bought the property was working to improve it. However, an effort to save some money, it cost them in the long run. "It is expensive to have a professional come out, but it can be more expensive when it doesn't go well. A lot more expensive," Mill Valley Fire Batt. Chief Michael St. John said. An arborist told ABC7 News the initial estimate to take the tree down was around \$2,000. Since the arborist removed the tree in an emergency situation, it will cost around \$8,000 for the homeowner. Read the full story at [abc7news.com](http://abc7news.com). ***Don't try to "save" by doing tree work that should be done by a professional, certified arborist. No one was hurt in this story, but not everyone is so lucky.***

### Big Trees First to Die in Severe Droughts

By Brittany Patterson and ClimateWire

October 1, 2015—National forests whose names come from their large, majestic trees—such as Redwood National Park and Sequoia National Park in California—may need to rethink their brands as droughts increase in frequency and severity in many regions around the world due to climate change. New research published this week in the journal *Nature Plants* ***finds it's the large trees that suffer most and are first to die.***

Read the full story at [scientificamerican.com](http://scientificamerican.com).

### American Chestnuts: From Blight to Restoration

By Alexander Silva

Posted Oct. 2, 2015

Littleton—Littleton is at the forefront of a recovery effort for the ravaged population of American chestnut trees - once one of the most common trees on the Eastern Seaboard of the United States, ranging from Maine to Georgia and as far west as the Ohio Valley. During the early 20th century, a fungus which the American chestnut had little resistance to was accidentally imported from Asia and gradually devastated the population, killing the ***trees' bark and cutting off its supply of food and water.*** "The chestnut blight was one of the early examples of this wave of exotic pests that we've brought to this country from all over the world," said New England Forestry Foundation Director of Forest Stewardship Chris Pryor. ***In Littleton's Prouty Woods, at the headquarters of the New England Forestry Foundation, the American Chestnut Foundation set up a breeding orchard in 2005 to breed blight-resistant Chinese chestnuts with American chestnut trees in an effort to save the species. Read the full story at [Wicked Local Littleton](http://WickedLocal.com).***

### Vancouver Tree Sale Hopes to Boost Forest Canopy

City sells cheap trees to reach goal of returning leafy coverage to 1995 levels

By Chad Pawson

October 3, 2015—The Vancouver Park Board has 1,000 trees on sale for \$10 each and is asking residents to find a home from them. "We need residents to also plant trees on their property in order to increase the urban tree canopy," said Vancouver Park Board Chair John Coupar in a release. Canopy cover is how much ground is covered by trees leaves when seen from the air. [...] the majority of Vancouver's tree cover — more than 60 per cent — is on private property and in the past two decades close to 24,000 trees have been removed from those areas. Read the full story at [cbc.ca](http://cbc.ca).

## 2016 DCR Arbor Day Poster Contest

Check out the 2016 theme and contest rules at:

<http://www.mass.gov/eea/docs/dcr/stewardship/forestry/urban/2016-dcr-arbor-day-poster-contest-instructions.pdf> more to come in the December *Citizen Forester*

# On the Horizon

- Nov 1 [DCR Urban & Community Forestry Challenge Grants Due](#)
- Nov 3 EPA Green Infrastructure Webcast, <https://attendee.gotowebinar.com/register/257480704225545730>
- Nov 4 **An Insider's Look at The 9/11 Memorial Trees**, Bruce Fraedrich, Newton Free Library, Newton, [www.newtonfreelibrary.net](http://www.newtonfreelibrary.net)
- Nov 5 Urban Forestry Today webinar, [www.joinwebinar.com](http://www.joinwebinar.com) Code: 138-507-475
- Nov 12-14 TCI Expo, Pittsburgh, PA, [www.tcia.org](http://www.tcia.org)
- Nov 14 TD Green Streets Tree Planting, Chicopee, Sign up with Chicopee Planning Dept.: 413-594-1515 or [online](#)
- Nov 16-17 Society of Municipal Arborists Annual Conference, Denver, CO, [www.urban-forestry.com](http://www.urban-forestry.com)
- Nov 18-19 Partners in Community Forestry Conference, Denver, CO, [www.arboday.org](http://www.arboday.org)
- Nov 20 TD Bank Green Streets Grant Due, [www.arboday.org/programs/tdgreenstreets](http://www.arboday.org/programs/tdgreenstreets)
- Dec 1 Nominations Due: Seth H. Swift Tree Warden of the Year Award, [www.masstreewardens.org](http://www.masstreewardens.org)
- Dec 2 ISA Exam, Boston (New England Grows), [www.newenglandisa.org](http://www.newenglandisa.org)
- Dec 2-4 New England Grows, Boston, MA, [www.newenglandgrows.org](http://www.newenglandgrows.org)
- Dec 2-5 American Society of Consulting Arborists Annual Conference, Tucson, AZ, <https://www.asca-consultants.org/>
- Dec 8 EPA Green Infrastructure Webcast, [www.epa.gov](http://www.epa.gov)
- Dec 9 Urban Forest Connections Webinar, <http://www.fs.fed.us/research/urban-webinars/>
- Dec 31 Deadline: Tree City USA, Tree Line USA, Tree Campus USA
- Jan 12-13 MTWFA Annual Conference, Sturbridge, MA [www.masstreewardens.org](http://www.masstreewardens.org)
- Jan 21 CTPA Annual Meeting, Plantsville, CT, <http://www.ctpa.org/>
- Mar 8 UMass Community Tree Conference, Amherst, MA, [www.umassgreeninfo.org](http://www.umassgreeninfo.org)
- Mar 9-10 ELA Conference and Eco Marketplace, Univ. of Mass., Amherst, MA, [www.ecolandscaping.org](http://www.ecolandscaping.org)



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*The Citizen Forester* is made possible through a grant from the USDA Forest Service Urban and Community Forestry Program and the Massachusetts Department of Conservation and Recreation, Bureau of Forestry.

**If you have a topic you'd like to see covered or** want to submit an item to *The Citizen Forester* (article, photo, event listing, etc.), please contact [Mollie Freilicher](#) or click [here](#).

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